

# EOSIN METHYLENE BLUE AGAR

**INTENDED USE:**

EMB Agar (Eosin Methylene Blue Agar) is recommended for the isolation and differentiation of gram negative enteric bacteria from clinical and nonclinical specimens.

**PRINCIPLE AND INTERPRETATION:**

EMB Agar (Levine) was developed by Levine and is used for the differentiation of *Escherichia coli* and *Enterobacter aerogenes*. It is also used for the rapid identification of *Candida albicans*. Eosin-Y and methylene blue make the medium slightly selective and inhibit some gram -positive bacteria.

Coliforms, being lactose-fermenting organisms, are identified as blue-black colonies, and colonies of *Salmonella* and *Shigella*, being lactose non-fermenters, are colorless, transparent or amber.

Some gram-positive bacteria, such as fecal streptococci, staphylococci and yeasts, will grow on this medium and usually form pinpoint colonies.

**COMPOSITION:**

Ingredients	Gr/Liter
Peptone	10 gr
Lactose	10 gr
Dipotassium hydrogen phosphate	2 gr
Eosin Y	0,4 gr
Methylene blue	0,065 gr
Agar	15 gr

\*\*\*Formula adjusted, standardized to suit performance parameters

pH: 6.8 ± 0.2

**PRECAUTIONS:**

For professional use only. Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

**TEST PROCEDURE:**

Allow plates to warm to room temperature. The agar surface should be dry before inoculating. Inoculate and streak the specimen as soon as possible after collection. If the specimen to be cultured is on a swab, roll the swab over a small area of the agar surface and streak for isolation with a sterile loop.

**QUALITY CONTROL:****1. Sterility Control:**

Incubation 48 hours at 30-35°C and 48 hours at 20-25°C: NO GROWTH

**2. Physical/Chemical Control**

pH: 6,8 ± 0,2

**Appearance:** Prepared medium is reddish purple.

**3. Microbiological Control:** Cultural response on EMB Agar at 35± 2 °C after 24 and 48 hours incubation.

Microorganism	Inoculum (CFU)	Results	
		Growth	Reaction
<i>Escherichia coli</i> ATCC 25922	10-100	Good	Good, metallic shine
<i>Salmonella typhimurium</i> ATCC 14028	10-100	Good	Colourless
<i>Enterococcus faecalis</i> ATCC 29212	100-1000	Partial Inhibition	Inhibition
<i>Staphylococcus aureus</i> ATCC 25923	100-1000	Partial Inhibition	Inhibition

**LIMITATIONS OF THE PROCEDURE:**

Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium

## STORAGE CONDITIONS AND SHELF LIFE:

Store the prepared medium at 2 - 12°C. Use before expiry date on the label..Do not use beyond stated expiry date.

## DISPOSAL:

Incubated prepared medium may contain active bacteria and micro-organisms. Do not open infected medium. Infected plate should be autoclaved, incinerated or opened and soaked in a chlorine-based disinfectant (liquid bleach) for 20 minutes prior to disposal.

## PACKAGING:

**Katalog Number:** 02026

**Packaging:**Single wrap

**Content:** 10 plates/each package

## REFERENCES:

1. Levine, 1918, J. Infect. Dis., 23:43.
2. Howard B.J., 1994, Clinical and Pathogenic Microbiology, 2nd ed., Mosby Year Book, Inc.



Aseptic Sterile



Batch Code



Catalogue Number



Negative Controls



Positive Controls



Use by



Temperature  
Limitation



Do not reuse



Contains sufficient  
for <n> tests



Look at user manual



Manufacturer